

FIG. 1

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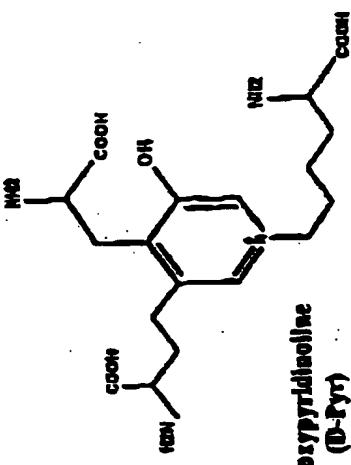
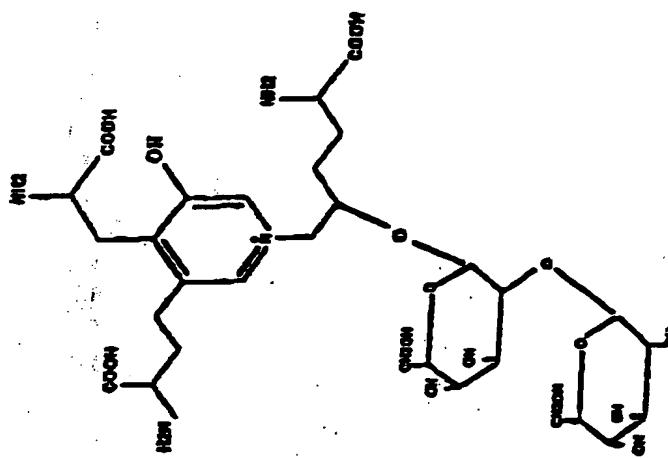
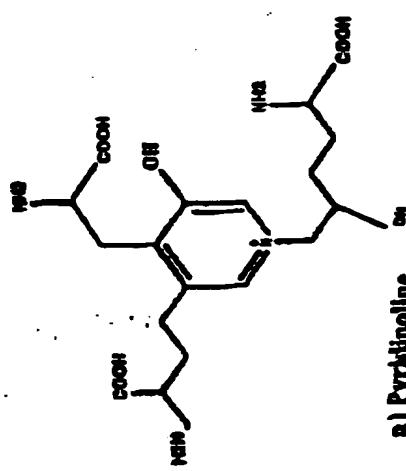
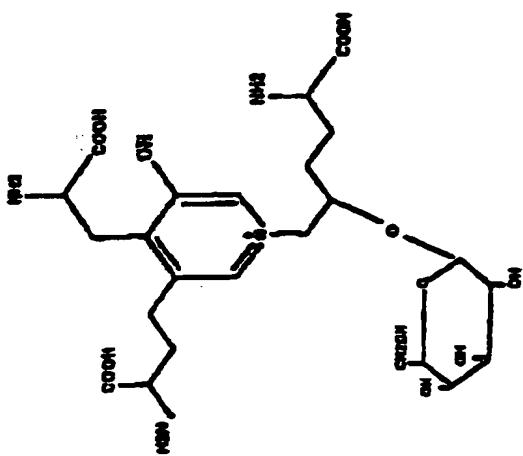
b) D-Pyridinolase  
(D-Pyr)d) Glucosyl Pyridinolase  
(Pyr-Glc)a) Pyridinolase  
(Pyr)c) Galactosyl Pyridinolase  
(Pyr-Gal)

FIG. 2

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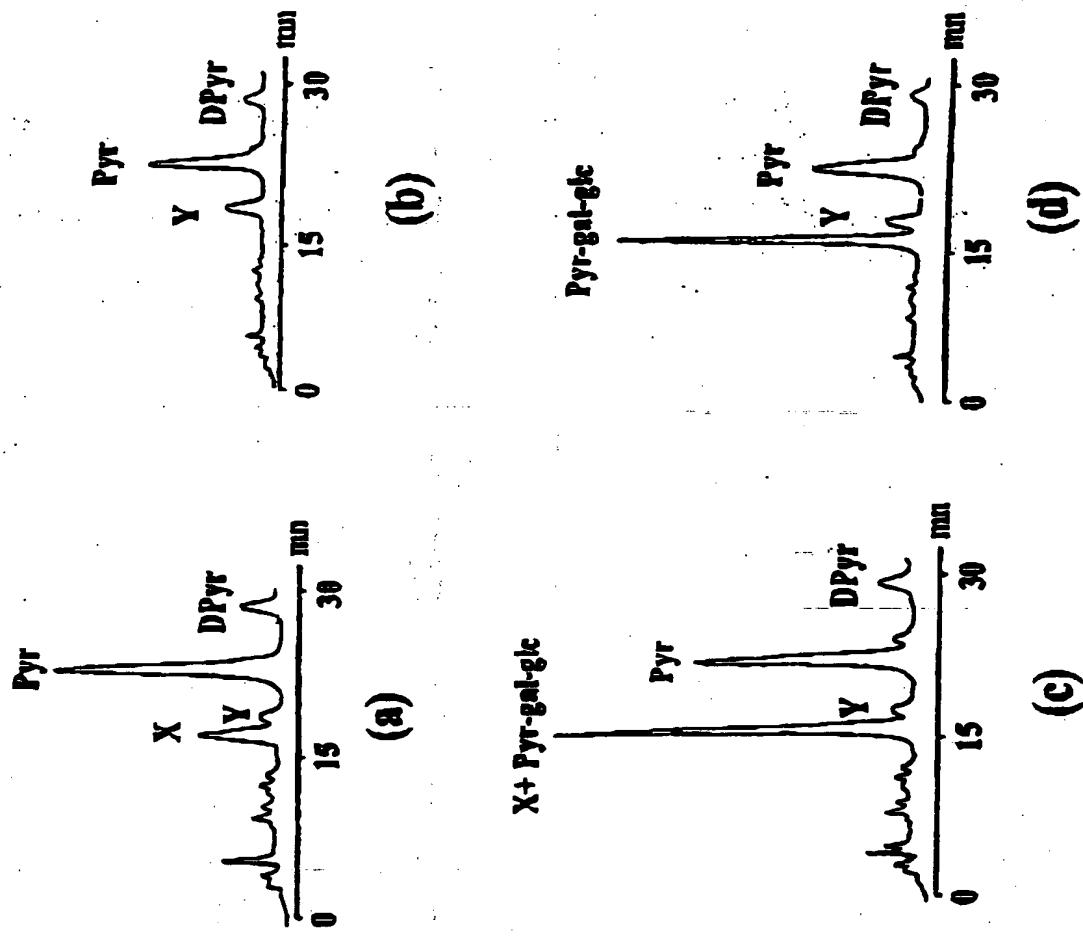
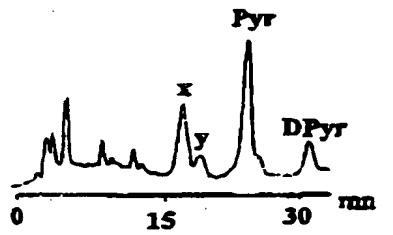
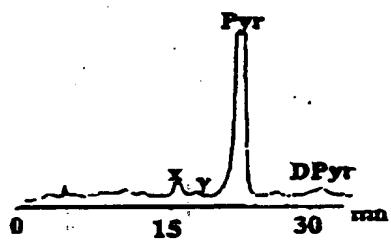


FIG. 3

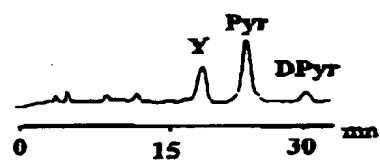
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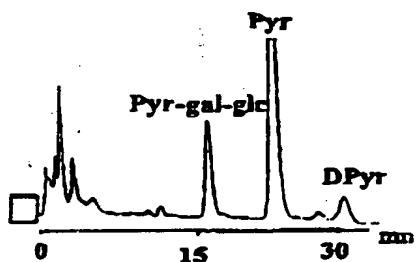
(a)



(b)



(c)



(d)

FIG. 4

**FIG 5**

		Hydrolysis time			
		5 hours	10 hours	15 hours	20 hours
Tissue:					
<b>Bone</b>	1	-	-	-	-
	2	-	-	-	-
<b>Synovial</b>	1	105%	94%	54%	37%
	2	72%	56%	64%	24%
<b>Cartilage</b>	1	6%	2%	1%	1%
	2	4%	2%	2%	1%

**FIGURE 6**

		Hydrolysis time	5 hours	10 hours	15 hours	20 hours
		Tissue:				
Bone	1	56%	33%	28%	24%	
	2	55%	44%	34%	29%	
Synovial	1	16%	12%	12%	12%	
	2	9%	10%	9%	9%	
Cartilage	1	-	-	-	-	
	2	-	-	-	-	

**FIG 6**

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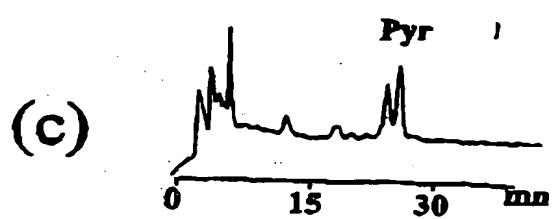
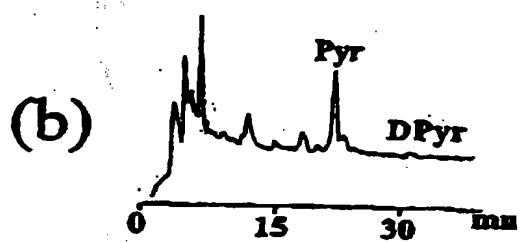
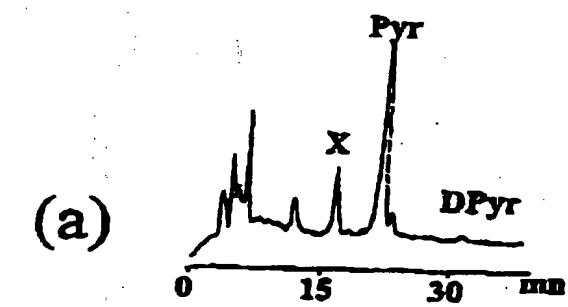


FIG. 7

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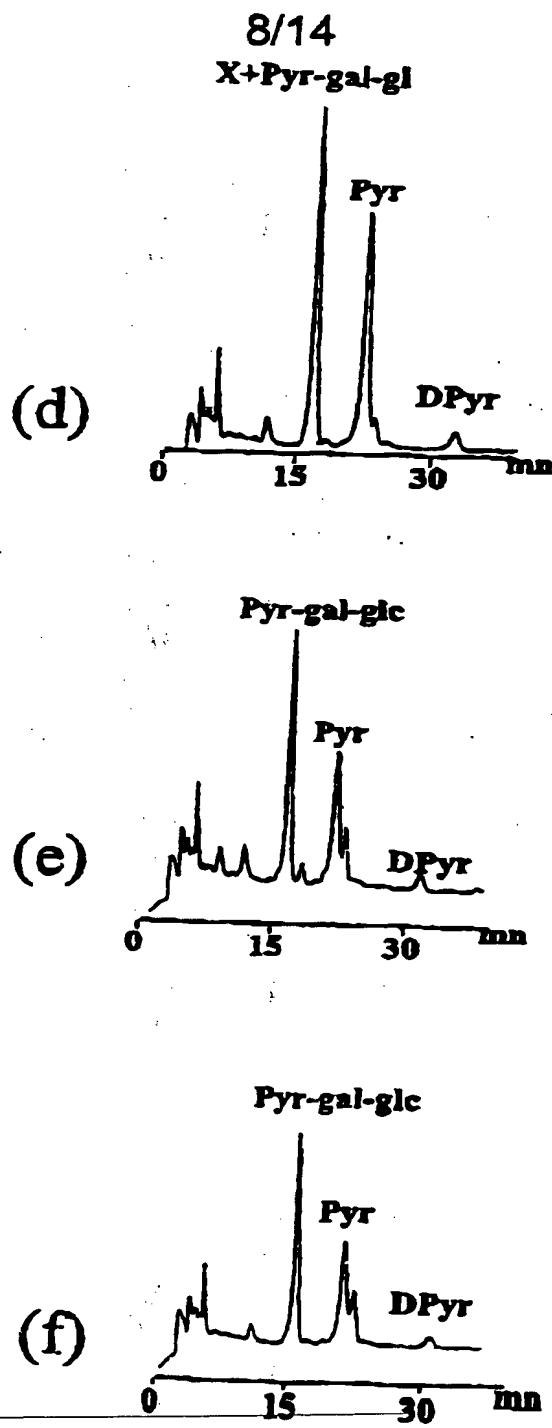


FIG. 7 Cont'd.

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Subjects	n	Age	Total Pyr (nmole/nmole Cr)			Free Pyr (nmole/nmole Cr)			(nmole/nmole Cr)	
			Pyr	d-Pyr	L-Pyr	Pyr-Glc	Cortilase	Crosslaps		
Pre-menopausal women	20	35.7 ± 2.8	21.5 ± 4.1	5.9 ± 1.4	13.4 ± 2.7	3.3 ± 0.9	4.5 ± 1.0	6.3 ± 0.9	126 ± 27	
Post-menopausal women	20	55.3 ± 2.4	34.8 ± 9.5	7.6 ± 2.6	15.6 ± 3.7	3.7 ± 0.9	4.8 ± 1.7	7.5 ± 2.8	231 ± 100	
Controls	40	45.5 ± 10.3	31.6 ± 7.9	6.7 ± 2.2	14.5 ± 3.4	3.5 ± 0.9	4.7 ± 1.4	6.9 ± 2.7	203 ± 106	
Rheumatoid arthritis	27	56.2 ± 11.9*	72.2 ± 51.8*	10.8 ± 7.6*	26.3 ± 15.0*	4.0 ± 2.3*	9.6 ± 5.9*	12.4 ± 8.3*	266 ± 187*	
Psori's disease	10		125.8 ± 53.6*	31.2 ± 13.5*	42.1 ± 15.4*	16.2 ± 5.1*	6.1 ± 1.9	7.2 ± 2.9	834 ± 352*	

\* Statistical significance (Anova) p < 0.05 of the difference compared with control group.

FIG. 8

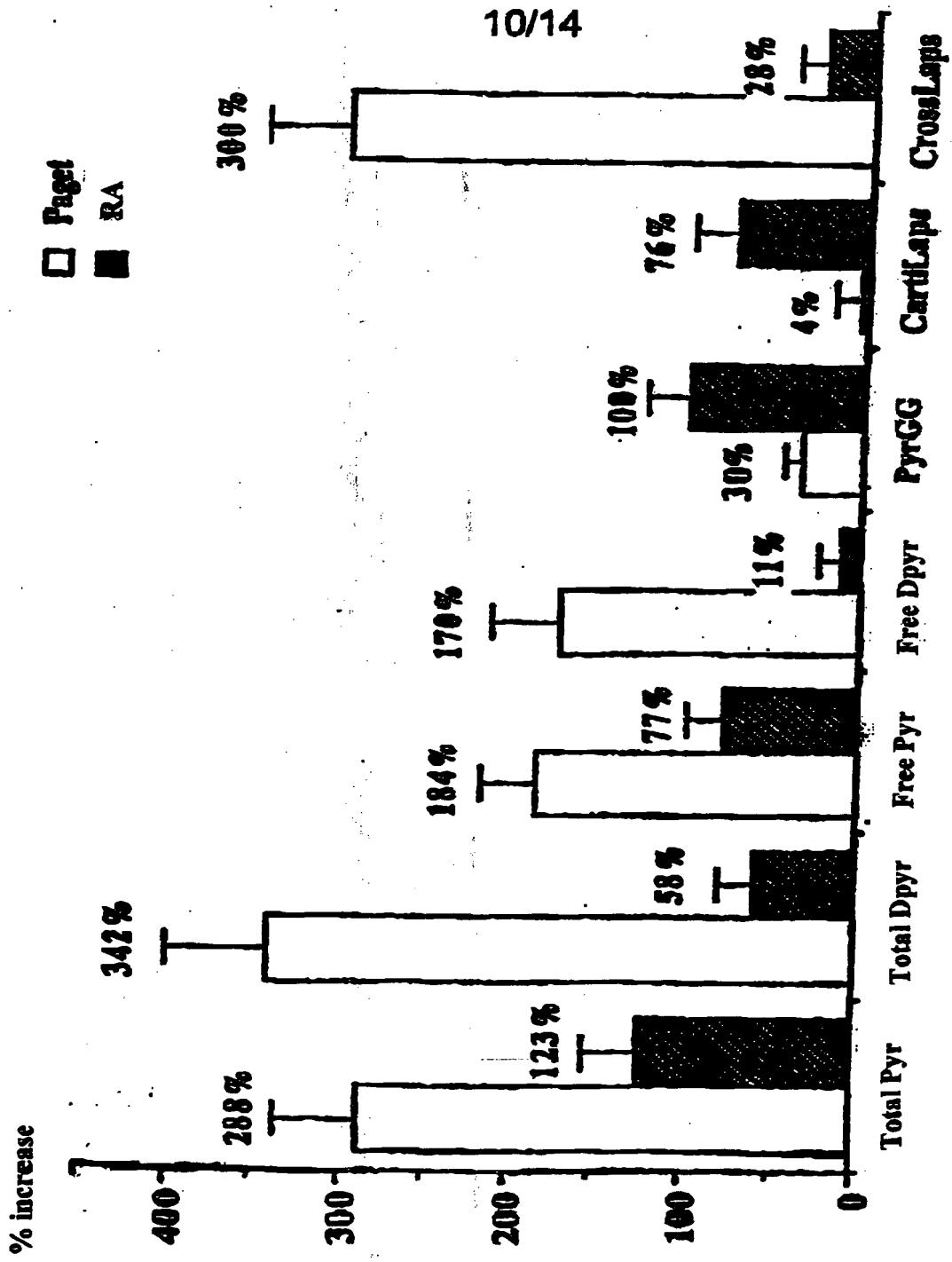


FIG. 9

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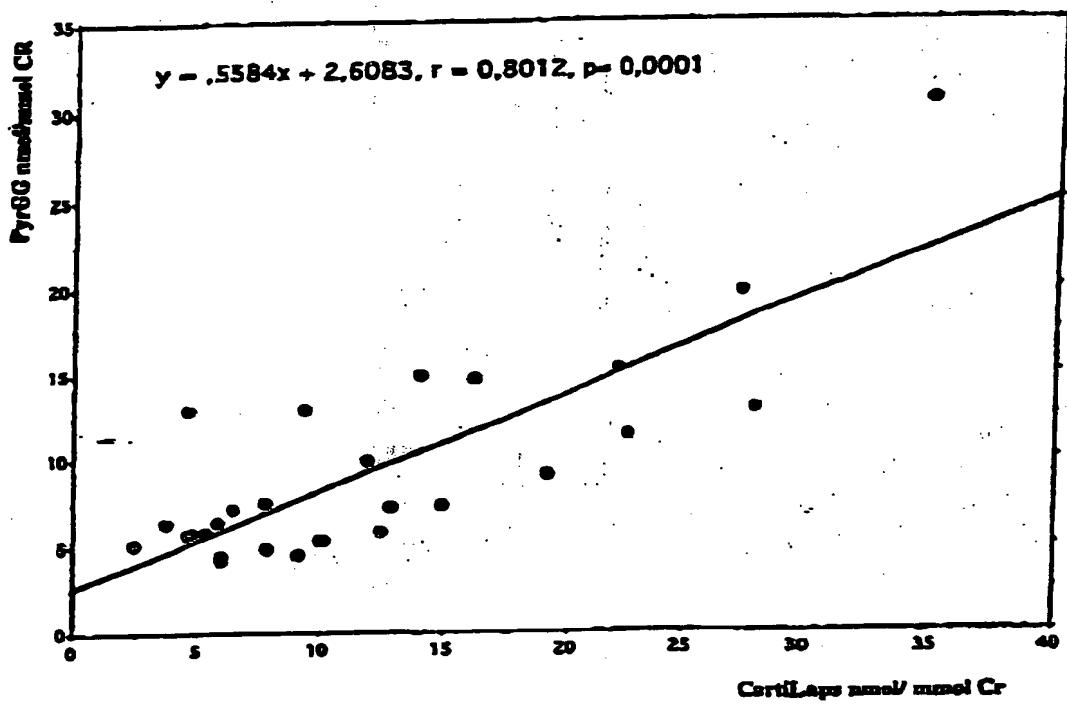


FIG. 10

FIG 11

	<b>n</b>	<b>Pyr-Gal-Glc</b> (nmole/mnmole Cr)	<b>Cartilaps</b> (nmole/mnmole Cr)
<b>Controls</b>	40	<b>4.7 ± 1.4</b>	<b>6.9 ± 2.2</b>
<b>Rheumatoid arthritis (RA)</b>	27	<b>9.6 ± 5.9*</b>	<b>12.4 ± 8.5*</b>
<b>Destructive RA</b>	12	<b>12.2 ± 7.4*</b>	<b>16.5 ± 10.0*</b>
<b>Non destructive RA</b>	15	<b>7.5 ± 3.2*</b>	<b>9.2 ± 5.4**</b>

\* Statistical significance (T-test)  $p < 0.001$       \*\* Statistical significance (T-Test)  $p < 0.05$

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Lequenne      Womac      Tibio-femoral space

Pyr-Gal-Glc	0.42*	0.50*	-0.50*
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\* p < 0.01

FIG. 12

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Progression	Narrowing of joint line		Bone erosion		Total score	
	YES (n=27)	NO (n=84)	YES (n=41)	NO (n=70)	YES (n=54)	NO (n=57)
Urinary Pyr-Gal-Glc (nmole/nmole creatinine)	8.8	7.2	9.3*	6.5	8.8**	6.3

Statistical significance of difference compared with group with no progress \* p = 0.03; \*\* p = 0.05

FIG. 13